

**DEPARTMENT OF ENERGY EM-50  
FY-97 TECHNICAL TASK PLAN FORMAT GUIDANCE**

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**DEPARTMENT OF ENERGY EM-50**  
**FY-97 TECHNICAL TASK PLAN FORMAT**  
(Amended for the Mixed Waste Focus Area)

The Technical Task Plan (TTP) consists of three parts. Each part contains the information listed below and will be submitted in the described format. It is recommended that the Principal Investigators (PI) work with their site Technical Program Officers and the MWFA Points of Contact to complete the TTP and TTP review process prior to formal submittal to DOE-ID. Both a signed hardcopy of the TTP and electronic copies of Parts II and III must be delivered to constitute a formal submittal. The remainder of this guidance gives general and detailed instructions for completing each section.

**Part I Task Summary** - Part I will be completed using the TTP 4.0 Database. The contents of Part I include:

- Header Information
- Task Summary
- Budget Summary
- Milestone Summary

**Part II Task Justification** - Part II must be submitted electronically in the Word Perfect 5.1 format. The contents of Part II include:

- Purpose
- Target Problem
- Technology Description
- Benefits
- Technology Transfer
- Staff/Organization Qualifications
- References

**Part III Task Execution Plan** - Part III must be submitted electronically in the Word Perfect 5.1 format. The contents of Part III include:

- Prior Year Progress
- Work Element Descriptions
- Letter/Title
  - Performance Goals/Deliverables
  - Technical Description of Work
  - Milestones
  - Cost/Duration of Work Element
  - Principal Performer/Collaborator
- Consolidated Funding and Basis
- Key Issues

NEPA/Regulatory Compliance

Budget Expense Schedule

Attachments

Resumes

PI Publications

Organizational Qualifications

Drawings/Photos

Requirements Matrix\*

\* MWFA requirement for FY-97. The requirements matrix will be described later in the guidance.

## **GENERAL INSTRUCTIONS**

The Technical Task Plan (TTP) is now divided into three sections: the Task Summary which will be entered into a database that will be used for statistical reports on the program, the Task Justification which provides the rationale for funding the work, and the Task Execution Plan which will be the annual contract for doing the work. All three sections must be completed for a proposal.

Proposal content should be of high technical quality and also describe work and costs for the lifetime of the proposed project. The intent is that once proposals are accepted, only the Task Summary (budget and milestones) and the Task Execution Plan need be revised or updated in response to Program Execution Guidance (PEG) to create the final TTP.

Content descriptors are included in each section. Address all points as directly and completely as possible. The appropriate level of detail is a function of the type and status of the technical work. If needed, detailed information on elements in the Part 1 header information is available in the EM-50 TTP Software System Users Manual. Technical Program Managers contact Steve Einan at (301) 903-7947 for copies of the manual if needed. These instructions revise the format in that manual. The content of the Task Summary remains nearly the same, however.

TTPs should be no longer than 20 pages, excluding the five pages for Part 1 and attachments. Information on staff and organization qualifications should be attached separately. Page limit does not apply to final, roll-up TTPs.

All acronyms are to be spelled out the first time used.

Milestones/Deliverables: Milestones should be identified as a significant EVENT in the project: 1) a point in time, of a key item/event, that if missed will have a definite impact on the program; 2) allows the (HQ) Program Manager and/or Waste Type Manager to clearly track the progress of his/her program. Milestones should be for planned achievements toward task objectives rather than periodic reports. The best milestones mark an event -- not an activity.

Report major milestones at HQ level. HQ milestones should include as a minimum completed test plans, completion of tests, issuance of technical reports, such as, the Technology Performance Report, regulatory documentation, completion of activities impacting go/no go decisions, and completion of Performance Measures. (The Technology Performance Report is an ongoing process, but completed only once, at the end of the project. Even if a project is multi-year, this document will only be completed at the end of the project.)

## **PART I: TASK SUMMARY FORMAT/CONTENT INFORMATION**

### **Header Information**

1. Title: (Type in All Caps)
2. Product Line: (Use Pick List in TTP 4.0 Database; this will indicate the appropriate Focus Area identification)
3. TTP No: (Use Pick List in TTP 3.2C Database when entering number)
4. Revision: (Start at 0, number in sequence when TTP is modified/revised for changes in scope, funding or schedule. Increase over life of TTP)
5. Date: (Date TTP is created or revised)
6. Task No.: (For roll-up TTPs)
7. Contractor: (Automatically entered - based on first three digits of TTP number)
8. HQ Office: (Use Pick List in TTP 4.0 Database)
9. Fiscal Year: (FY targeted for funding)
10. HQ Focus Area Team Lead: Grace Ordaz, EM-53, 301-903-7440
11. Partner Focus Area Team Lead: Julie Conner, DOE-ID, 208-526-0648
12. HQ Financial Officer: Barbara Watson, EM-131, 301-903-7950
13. Technical Program Officer: (DOE TPO at respective sites)
14. Principal Investigator: (Name, company, phone number)
15. Joint Participants: (Other labs, industry, universities, other)
16. Jointly-Funded Program: (Use Pick List in TTP 4.0 Database)
17. Primary Technology Area: (Use Pick List in TTP 4.0 Database)
18. Secondary Technology Area(s): (Use Pick List in TTP 4.0 Database)
19. Primary Focus Area: (Use Pick List in TTP 4.0 Database)
20. Secondary Focus Area: (Use Pick List in TTP 4.0 Database)
21. Budget and Reporting (B&R) Code: (Use Pick List in TTP 4.0 Database)
22. Joint B&R Code: (Use Pick List in TTP 4.0 Database)

### **Task/Subtask Summary**

The Task/Subtask Summary is a narrative section limited to 250 lines of text and should include the following information: summary description of targeted problem, summary description of proposed work, summary of expected benefits, and any key issues for all tasks associated with the Technical Task Plan (TTP). For Rollup TTPs, no more than one page per task. To ensure guidance is comprehensive, this narrative section must address or identify the following:

1. Task Title
2. Requested New FY-97 Funding; Schedule Duration
3. Task Statement of Work and Task Funding
4. Crosswalk of FY-96 TTPs
5. Progress Tracking System (PTS) Variance Thresholds in Dollars and Percents (upper and lower limits)
6. Description of Deliverables and Milestones
7. Joint Participant Data

*--Example (with explanation/direction)--*

TASK A: Title of Task A

Value: \$XXX K

Schedule Duration: October 1996 thru September 1997

State description of Task A scope of work.

SUBTASK A1: Title of Subtask A1

Value: \$XX K

Schedule Duration: October 1996 thru January 1997

State description of Subtask A1 scope of work.

CROSSWALK TABLE: State if this TTP is linked with other FY-96 TTPs or is new for FY-97.

PROJECT/VARIANCE REPORTING: The MWFA Principal Investigators are expected to provide accurate data to the monthly Progress Tracking System (PTS) reports. The Principal Investigators should pay additional attention to the following areas:

- Funding
- Baseline
- Cost and Schedule Variance Analysis
- Milestone Reporting
- Project Narrative
- Managers' Ratings

DELIVERABLES AND MILESTONES: Refer to explanation found on page 2 of this guidance.

JOINT PARTICIPANT DATA: Partner information should include data such as: Partner name; type [i.e., Private Industry (MO/universities, DOE HQ), Interagency Agreement, other labs]; company status (i.e., commercial firm, disadvantaged, government agency, non-profit firm, small business, women owned); how the Partner will be funded (i.e., subcontract, vendor procurement, contract, PRDA, etc.); prior year and current year funding status.

TECHNOLOGY GATE INFORMATION: Each Principal Investigator will review the "Mixed Waste Focus Area Technology Development Transition Criteria" template provided with the TTP Guidance Package and check each criteria which they have completed and can show proof-of-completion.

PERFORMANCE MEASURE METRICS: The MWFA will supply FY-97 Performance Measures.

*-- End of Example --*

**Budget Summary**

TTP funding information in the Budget Summary should identify the anticipated carryover to be used as well as the New BA requirements. Indicate number of Full Time Employees (FTEs).

### **Milestone Summary**

This summary should include current-year Headquarters (HQ) and Operations Office (OO) milestones for each work element. All HQ milestones are to be coded "Yes" which will automatically include them in the Progress Tracking System (PTS) report. OO milestones can be coded either "Yes" or "No" - if yes, it will be automatically included in PTS. (Current-year Contractor milestones can be included but should be coded "No" - do not include in PTS report.) Milestone titles should reflect an action (initiate, evaluate, deliver, treat, etc.).

### **Drivers**

Identify applicable drivers from list in TTP 4.0 Database.

### **Waste Types**

Identify all applicable waste types from list in TTP 4.0 Database.

### **Program Management and Points of Contact (POC)**

Type in all appropriate information.

### **Spending Plan**

Spread the funding throughout the fiscal year, including any carryover funds from prior years.

### **Budget Expense Summary Sheet**

Fill out for each FY of requested funding; include FTE information.

\* Specific MWFA requirements for Parts 2 and 3: include either a header or footer indicating the TTP number, revision number of the TTP, and page number (page XX of XX--of Parts II and III).

## **PART II: TASK JUSTIFICATION**

TTP No.:

Revision No:

### **Purpose**

In a few sentences concisely describe the purpose and scope of this work.

### **Target Problem**

The problem definition should include the need from the MWFA and details on related site-specific problems, if available. Details can include contaminants, media, extent of problem inside and outside of DOE, operational or other constraints, performance requirements, and any unknowns. Clearly defend appropriateness for EM funding. Cite references with more information on the need.

### **Technology Description**

*This is the key section of the TTP.* Describe, in detail, the proposed technology and how it will work to solve the problem defined above. Technical detail which justifies belief in the potential success of the proposed approach or technology is expected. Technical drawings and photos may be submitted as an appendix. Drawings and photos should not substitute for quality narrative description; they should augment it.

A non-technology proposal should describe the proposed solution and how it will solve the problem defined above. Non-technology proposals should name this section **Solution Description**.

Describe the functional objectives or performance indicators of the solution or proposed technical work, the basic approach to meeting those objectives, and how accomplishment of them will be measured. Details on work elements should be included in Part III, Work Element Descriptions.

Identify key prior work by performer and others, cite key references, describe relationships and interfaces with other ongoing work, describe how this work differs from other work, list past sponsors and dollars spent to date.

### **Benefits**

Discuss the merits and benefits to the proposed technology or solution. For technology tasks, this section should address benefits relative to current or competing technologies that perform the same function. For support tasks, such as technology integration, this should describe the expected benefits.

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section should address benefits relative to current or competing technologies that perform the same function. For support tasks, such as technology integration, this should describe the expected benefits.

Quantification of benefits should follow a graded approach. For new technologies projection within the available data should be made on expected benefits (e.g., lower cost, faster, simpler, etc). For mature technologies, quantitative information should be provided on the cost of using this technology versus baseline technologies. A technology can be considered mature if it is within one year of full-scale demonstration.

Describe the solutions flexibility or range of applicability. For example, can this solution be applied to only a narrow problem type (e.g., an aqueous organic stream) or is it broadly applicable to other problem types (e.g., sludges, solids, etc.) in addition to the one targeted in this TTP? If possible, estimate the number and extent of opportunities to use this solution within DOE and beyond. (For example, DOE has two hundred sites, totalling 6 million kg of waste needing treatment. DOD and private industry sites include another 5 million kg of waste.)

MWFA specific: waste volume information should be included. The benefits should be written specific to each end-user. Except in the early gates, one or more specific end-users should be defined (this can be found in the applicable Technology Development Requirements Document (TDRD)).

### **Technology Transfer**

Discuss how the technology or results will be transferred to private industry EM-30, EM-40, EM-60 or other users. If users are currently involved in this task, describe.

Describe issues that users may face in using this new technology. For example, regulatory concern, special training, availability from suppliers, etc.

Describe the product delivery form (e.g., data, design drawings, hardware, procedures, etc.)

Address whether an industrial partner is needed for implementation by the users. For tasks where this is not applicable, no explanation is needed. Not applicable does NOT mean that there should be no industrial partners. Examples might include tasks generating data or technologies with very limited application, e.g., one time procurement of a tank waste retrieval arm. If an industrial partner is needed, address when in development industrial partnership should be sought and the preferred means.

If industry is involved in either commercializing this new technology or supplying it to DOE users, explain method, e.g., CRADA, a license to use a patent, or some other vehicle?

MWFA specific: This section should be tied to the specific end-users. Describe how the end-user is currently planning to treat the waste for which this technology is applicable (i.e., privatized

treatment or DOE treatment). If the end-user is privatizing, the technology transfer should be keyed to that action.

### **Staff/Organization Qualifications**

In an attachment to this TTP, include resumes of one page or less for each principal staff person, summarizing their experience related to this proposal. Also attach, if applicable, a list of their publications related to the proposed work. List the included resumes here.

Describe the organization's qualifications for conducting this work: co-location with the problem, extensive past DOE investment in work in this area, unique facilities, related work funded by EM or others. If this section is more than one page, it should be included as an attachment.

### **References for Part II**

List all references cited in this TTP.

## **PART III: TASK EXECUTION PLAN**

TTP No.:

Revision No.:

### **Prior-Year Progress**

Summarize progress achieved during the prior year. This could include statements of technical accomplishments, major decisions, new links with users or partners, or new data on benefits. This is "Not Applicable" for new proposals.

### **Work Element Descriptions**

THE TERM WORK ELEMENT IS PREFERRED BECAUSE WHEN ROLLUPS ARE USED, TASKS BECOME SUBTASKS.

Address all five items for each work element expected over the life of the project. Some work elements may start in outyears or may be performed solely by task partners.

The first work element should be Task Management and should address how the overall effort will be managed.

Each work element should be noted by a letter, e.g. "A", "B", etc. Each associated milestone is labeled by work element letter and a number, e.g. "A1", "B1".

Work Element Letter and Title (title optional)

### Performance Goals/Deliverables

Describe what will be produced over the life of this work element, e.g., a design, data, Test Plan, Technology Performance Report, Technology Development Plan, a report, a management plan, software, a public meeting, etc.

### Technical Description of Work

Identify what will be done, and discuss why this work contributes to the overall goal of the project, the needed facilities, etc. Clearly indicate what will be done in each FY, with more detail for current FY.

Describe relationship to other work elements or tasks, EM-50 or other, if any.

### Milestones (Decision Points/Major Accomplishments)

List milestones for major accomplishment and decision points. Proposer should recommend milestone level. Current-year milestones will be repeated in Part I, Milestone Summary.

The best milestones are those that mark an event and not an activity. Milestones should be for planned achievements toward task objective rather than periodic reports. Also note critical points such as regulatory approval.

### Cost/Duration of Work Element

Show for each FY if appropriate. Include, separately, the dollars coming through this task and any outside dollars.

### Collaborators and Principal Performers

List all collaborating organizations and principal staff performing this work in this element. Show distribution of dollars in Cost/Duration above. Clearly indicate if EM 30, 40, or 60 staff are participating or if work is being done jointly with a 30/40/60 project.

## **Consolidated Funding and Basis**

Use a table to show funding for each work element over the life of the task. Include prior-year carry over.

Identify major cost items. (Capital Equipment and Subcontracts)

Include overall task spending plan.

Clearly explain how the costs were determined and why they should be believed.

MWFA specific: Consider ad hoc requests from DOE and MWFA (i.e., preparation for and/or attendance at Mid-Year/Start/End of Year meetings; Stakeholder activities; Public and Tribal activities; DOE-HQ ad hoc requests, etc.). It is suggested each PI budget \$15K for these ad hoc requests.

### **Key Issues**

Discuss issues that could impede successful completion of this work, such as: dependencies on other tasks, dependency on joint funds from other sources, technical uncertainties, end-users' schedule (i.e., when this work needs to be done to be useful to the end user), etc.

### **NEPA/Regulatory Compliance Approach**

Describe approach to determine and respond to requirements for NEPA-compliance and other regulations. If not applicable, so state.

### **Budget Expense Schedule**

Include total task costs for prior and all out years as indicated in the Budget Expense Schedule by Cost Element form in the Software System users Manual.

### **Attachments**

Resumes  
PI Publications  
Organizational Qualifications  
Drawings  
Photos  
Requirements Matrix